

An edited version of this article has been published as: Jones R (2010) Emergency preparedness. British Journal of Healthcare Management, 16(2): 94-95. Please use this as the citation.

## Emergency Preparedness

Dr Rod Jones (ACMA)  
Statistical Advisor and Chartered Accountant  
Healthcare Analysis & Forecasting, Camberley, Surrey  
[hcaf\\_rod@yahoo.co.uk](mailto:hcaf_rod@yahoo.co.uk)

For further articles in this series go to: [www.hcaf.biz](http://www.hcaf.biz)

Key Words: Emergency planning, NHS operating plan, England, trends in emergency admissions

The Department of Health (2009) has recently released the operating framework for the NHS in England which will apply to the 2010/11 financial year. The section dealing with Emergency Preparedness talks about NHS organisations 'putting in place plans and arrangements to deliver an effective response to threats and hazards' (p20). The same document speaks about an NHS with fewer acute beds (p27) and deals with the recent unprecedented rise in medical emergency admissions without comment but introduces prices for 2010/11 which will only pay 30% of full tariff for emergency activity above a 2008/09 baseline (p35). Perhaps we need to unravel the silence behind the sudden need for a 70% discount when the whole basis for Payment by Results (PbR) was supposed to reflect the philosophy that 'the money follows the patient'. In this case only 30% of the money!

Figure 1 presents an interesting view of the past 11 years of NHS activity trends. The trends have been split by age group and are for a cluster of 48 diagnostic groups which have been shown to be associated with the two step changes in medical admission rates seen as a full year effect in 2003/04 and 2008/09 (Jones 2010c). This cluster of diagnostic groups has an annual activity equivalent to the general medical group of specialties although its scope is wider than just medicine and includes aspects of mental illness. No mention of such a profound phenomenon in the operating plan and no apparent need to plan for such an event happening again. If one were to observe that this phenomenon added over 1,200,000 bed days (equivalent to 3,300 occupied beds or four to five large hospitals) of additional acute bed demand into the NHS in England in both 2003/04 and 2008/09, would it seem a little short sighted to specifically omit this from the remit of the 'response to threats and hazards', particularly when the operating framework envisages fewer acute beds? To put this in context the step increase in 2008/09 effectively annulled all length of stay efficiency gains made in England since 2003/04. To say the very least, this is a somewhat fundamental 'threat and hazard'.

The silence appears to be answered by the introduction of a punitive 70% discount on emergency admissions above a 2008/09 threshold. In other words, we don't quite know what is going on but it must be those grossly inefficient acute trusts admitting anyone who pitches up at the door.

Last month 'Money Matters' investigated the possibility that a similar pattern of step increases in cost may be occurring in the USA and that this could be the basis for a cycle of surplus and deficit within the NHS (Jones 2010a). A review of trends in emergency admission in the UK over the past 25 years concluded that admissions to the medical group of specialties displayed regular step increases in both admissions and occupied beds at between three to six year intervals (Jones 2009a,b,c). The step change occurs mostly in mid financial year although that which occurred in 1993 was in February/March, i.e. toward the end of a financial year (Jones 1996). A further review concluded that this is unlikely to be explained by organisational- or policy-based factors but rather appears to have all the hallmarks of an 'infectious outbreak'. It was postulated that this outbreak had a specific effect against general immune function which was consistent with the observed cluster of 48 diagnostic groups used to construct Fig. 1 (Jones 2010b).

An edited version of this article has been published as: Jones R (2010) Emergency preparedness. British Journal of Healthcare Management, 16(2): 94-95. Please use this as the citation.

At this point a consideration of some relevant features from Fig. 1 is warranted. The effect can be seen to be age specific and the magnitude varies with each outbreak. Note the initial step change is followed by a further increase in admissions in the year following (possibly complicated by changes in the volume of zero day stay emergency admissions) and this is where the 70% discount will bite.

So whether or not you believe that a new type of infectious outbreak is the causative agent for such step increases that fact that they have occurred over the past 25 years at three to six year intervals should at the very least lead to a consideration that at some point from the second half of 2010/11 onward the same could happen again.

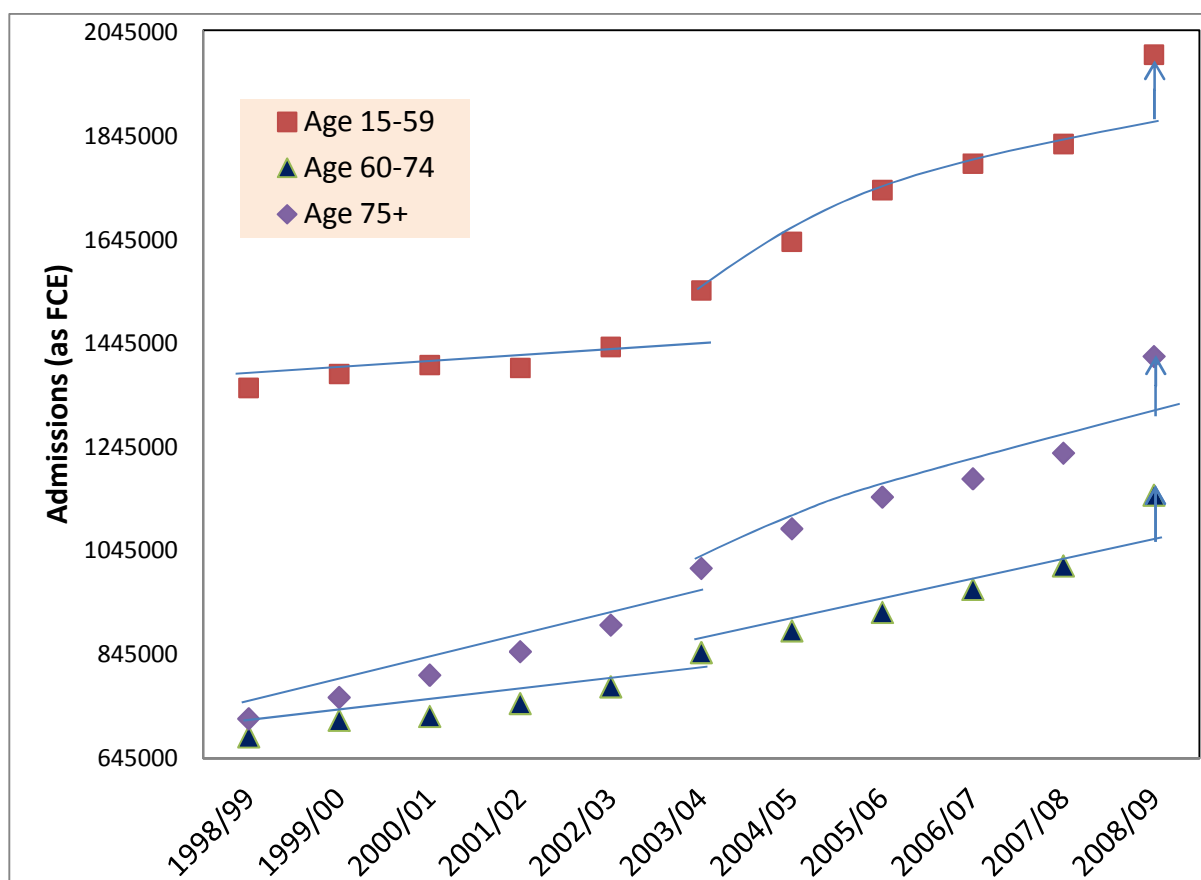
So why did the DH come up with a 70% discount? The 2008/09 baseline gives silent testimony to the step change while the discount effectively puts PCT's back toward financial balance and deftly shifts the problem to acute Trusts - many (but not all) of whom carry a surplus. One of the hallmarks of an infectious outbreak is that of regional variation and so the problem ends up being shouldered more by some than others, especially those acute sites servicing an elderly female population (Jones 2010b). Assuming a marginal cost of just £100 per day 1,200,000 bed days are equivalent to around £120million of recurring additional cost pressure shared unequally among 140 acute Trusts. Indeed the issues surrounding regional variation in infectious outbreaks and the magnitude of the cost implications for this phenomenon cast serious doubts upon the ability of the capitation formula to fairly allocate local funds under such circumstances.

As for the issue of fewer beds, based on past trends, this will require unprecedented levels of length of stay improvement just to catch up on the 1,200,000 bed days of additional demand (Jones 2009d,e,f). Any hospital seriously thinking of making such necessary and rapid progress needs to study the work on discharge planning and associated length of stay reduction achieved at a hospital in New Zealand (Rae et al 2007). Healthcare planning and resource allocation is never as simple as it first appears to be.

## References

- Department of Health (2009) The operating framework for 2010/11 for the NHS in England. December 2009.  
[http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/@dh/@en/@ps/@sta/@perf/documents/digitalasset/dh\\_110159.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/@sta/@perf/documents/digitalasset/dh_110159.pdf)
- Jones R (1996) Emergency admissions in the United Kingdom: Trend upward or fundamental shift? Healthcare Analysis & Forecasting, Camberley. <http://www.docstoc.com/docs/9258083/Increase-in-emergency-admissions---trend-or-step-change>
- Jones R (2006) Zero day stay 'elective' admissions in Thames Valley. Healthcare Analysis & Forecasting, Camberley. <http://www.docstoc.com/docs/5049796/Benchmark-Day-Case-Admissions>
- Jones R (2009a) Trends in emergency admissions. BJHCM 15(4), 188-196.
- Jones R (2009b) Cycles in emergency admissions. BJHCM 15(5), 239-246.
- Jones R (2009c) Emergency admissions and hospital beds. BJHCM 15(6), 289-296.
- Jones R (2009d) Building smaller hospitals. BJHCM 15(10), 511-512.
- Jones R (2009e) Length of stay efficiency. BJHCM 15(11), 563-564.
- Jones R (2009f) Crafting efficient bed pools. BJHCM 15(12), 614-616.
- Jones R (2010a) Cycles in NHS surplus and deficit. BJHCM 16(1), 48-50.
- Jones R (2010b) Unexpected, periodic and permanent increase in medical inpatient care: Man-made or new disease? Medical Hypotheses (submitted).
- Jones R (2010c) Additional studies on the three to six year pattern in medical emergency admissions. Journal of Evaluation in Clinical Practice (submitted)
- Rae B, Busby W and Millard P (2007) Fast-tracking acute hospital care – from bed crisis to bed crisis. Australian Healthcare Review 31(1), 50-62.

**Fig 1: Trends in admissions to the cluster of diagnoses**



Footnote: FCE = finished consultant episodes. Admissions include elective overnight (29%), day case (21%) and emergency (50%) as a continuum of care. The trend line for the period 1998/99 to 2002/03 falls below the 2002/03 data point due to a part year effect from the step change. Both the elective overnight and emergency trends for this group of diagnoses display the two step changes. For all age groups the 2008/09 apparent step change was greater than that seen in 2003/04 and this is partly due to 156,000 additional 'day case' in 2008/09 – inspection of the diagnostic groups with the highest change in 'day case' strongly suggests outpatient procedures/tests are being re-badged as a day case (Jones 2006). Data for the 48 high level ICD diagnosis groups is from [www.hesonline.nhs.uk](http://www.hesonline.nhs.uk)